

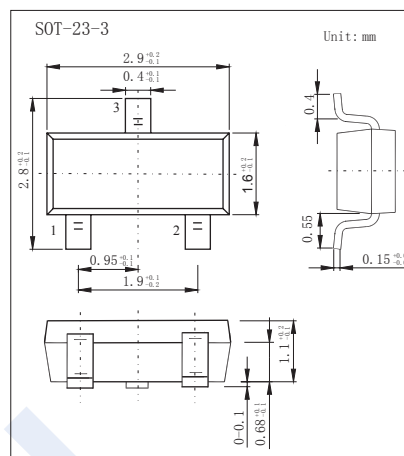
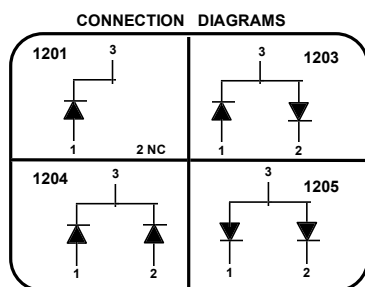
Switching Diodes

MMBD1201/1203/1204/1205

(KMBD1201/1203/1204/1205)

■ Features

- High Conductance Ultra Fast Diode



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Peak Reverse voltage	V_{RM}	100	V
Average Rectified Output Current	I_o	200	mA
DC Forward Current	I_F	600	
Recurrent Peak Forward Current	I_{FP}	700	
Peak forward surge current	I_{FM}	1	A
Pulse width = 1.0 second P pulse width = 1.0 microsecond		2	
Power Dissipation	P_D	350	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	$I_R = 100 \mu\text{A}$	100			V
Forward voltage	V_F	$I_F = 1 \text{ mA}$	550		600	mV
		$I_F = 10 \text{ mA}$	660		740	
		$I_F = 100 \text{ mA}$	820		920	
		$I_F = 200 \text{ mA}$	0.87		1	V
		$I_F = 300 \text{ mA}$			1.1	
Reverse voltage leakage current	I_R	$V_R = 20 \text{ V}$			25	nA
		$V_R = 50 \text{ V}$			50	
		$V_R = 50 \text{ V}, T_a = 150^\circ\text{C}$			5	μA
Capacitance between terminals	C_T	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			2	pF
Reverse recovery time	t_{rr}	$I_{RR} = 1 \text{ mA}, I_F = I_R = 10 \text{ mA}, R_L = 100 \Omega$			4	ns

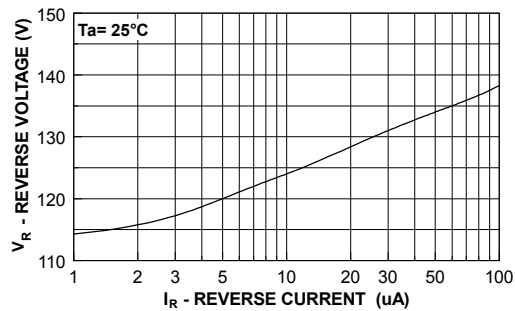
■ Marking

NO.	MMBD1201	MMBD1203	MMBD1204	MMBD1205
Marking	24	26	27	28

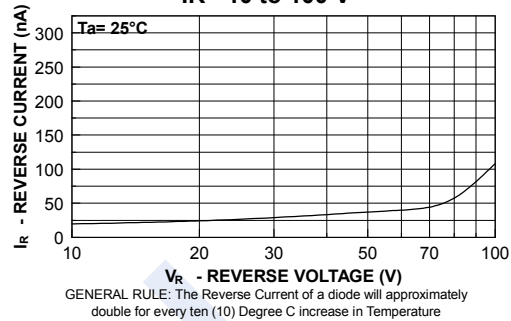
MMBD1201/1203/1204/1205 (KMBD1201/1203/1204/1205)

■ Typical Characteristics

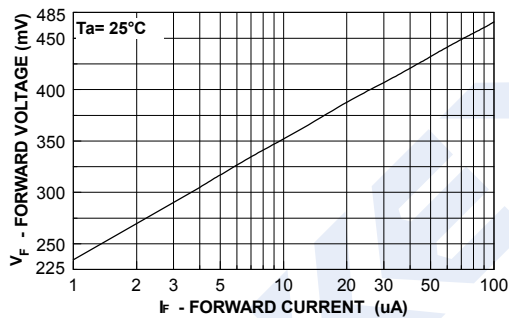
REVERSE VOLTAGE vs REVERSE CURRENT
BV - 1.0 to 100 μ A



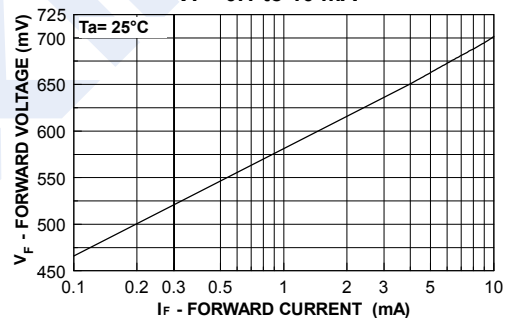
REVERSE CURRENT vs REVERSE VOLTAGE
IR - 10 to 100 V



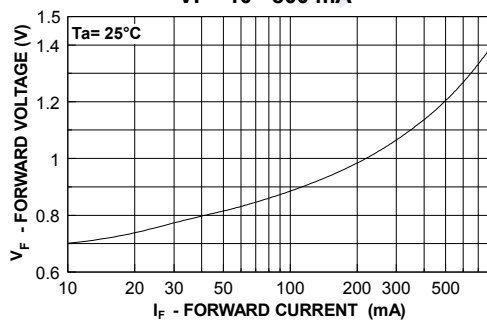
FORWARD VOLTAGE vs FORWARD CURRENT
VF - 1.0 to 100 μ A



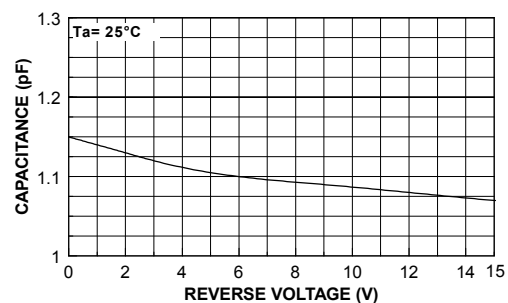
FORWARD VOLTAGE vs FORWARD CURRENT
VF - 0.1 to 10 mA



FORWARD VOLTAGE vs FORWARD CURRENT
VF - 10 - 800 mA



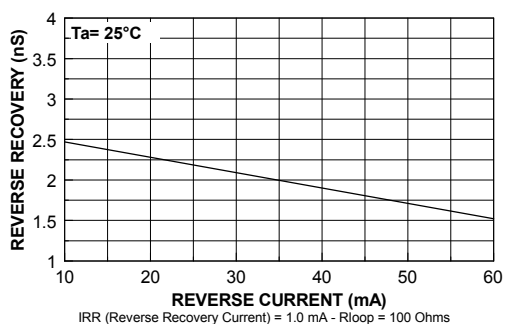
CAPACITANCE vs REVERSE VOLTAGE
VR - 0.0 to 15 V



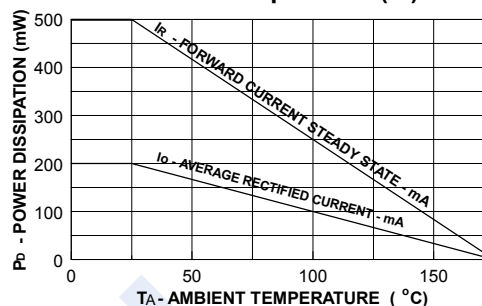
MMBD1201/1203/1204/1205 (KMBD1201/1203/1204/1205)

■ Typical Characteristics

REVERSE RECOVERY TIME vs REVERSE CURRENT
TRR - IR 10 mA vs 60 mA



Average Rectified Current (I_o) &
Forward Current (I_F) versus
Ambient Temperature (T_A)



POWER DERATING CURVE

